

Medicaid Analytic eXtract (MAX)

An Introduction

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Medicaid Person-Level Data Background

- **Medicaid Tape-to-Tape Project**
 - 1980 to early 1990s
 - Five states
 - Prototype for later data collection
- **Medicaid Statistical Information System (MSIS)**
 - **From 1987 to 1998**
 - Voluntary participation by states (5-38 states)
 - State Medicaid Research Files (SMRFs)
 - **1999 and following**
 - Mandatory for all states
 - Medicaid Analytic eXtract (MAX)



MAX – What is it?

An Overview

- **Data derived from MSIS** (7 calendar quarters)
- **Created for analytic uses**
 - Research/evaluation
 - Epidemiology
 - Statistics/forecasting
- **Calendar Year** (begins 1999, SMRF - prior years)
- **Event Based**
 - Occurrence of eligibility
 - Final action events (hospital stays, visits, etc.)
 - Dates of service



MAX Data Sets

- **Person Summary File**
 - Eligibility (annual and monthly)
 - Managed care enrollment
 - Utilization and Medicaid payment by type of service
- **Claims Files**
 - Inpatient hospital
 - Long term care
 - Prescription drug
 - Other Services
- **Claims for**
 - Fee-for-service
 - Prepaid managed care (premium payments only)



Why Do We Need MAX?

- **Eligibility**

- Retroactive eligibility in proper chronology
- Eligibility codes – verified and improved
- Eligibility data added to each claim

- **Services (Claims)**

- Final action events (interim claims combined)
- Organized by dates of service
- Type of service – verified and regrouped

- **Person Summary File**

- Monthly eligibility and demographics
- Summary of claims data by type of service



Medicaid Data Enhancements

Eligibility

- **More detail on Medicaid eligibility**
 - Dual (Medicare and Medicaid) status
 - Qualified Medicare Beneficiaries (QMBs)
 - Specified Low-Income Medicare Beneficiaries (SLMBs)
 - Other
 - Medicare HIC number
 - Medicaid case number
 - Enrollment in prepaid managed care
- **Other program eligibility**
 - TANF
 - SCHIP



Medicaid Data Enhancements Services

- **More data on conditions and treatments**
 - Diagnosis codes
 - Procedure codes
- **Improved coding for services**
 - Waivers
 - Cost center data for hospitals
 - Additional types of service
 - DME and supplies
 - Adult day care
 - Other
 - Maternal Delivery Indicator



Special MAX Enhancements Data Linkages

- **Link to Medicare Enrollment Data Base (EDB)**
 - Best way to identify dual eligibles
 - Begin and end dates of Medicare eligibility
 - Other Medicare data (e.g. primary language, date of death)
- **Link to First Data Bank (FDB) Data**
 - Prescription drugs
 - Link on National Drug Code (NDC)
 - Therapeutic classes (clinical use)
 - Other FDB data (e.g. generic, OTC or prescribed drug)
- **Capability for other linkages (e.g. SSA)**



Challenges in Developing Consistent Medicaid Data

- **Medicaid differences...**
 - Across states (program)
 - Over time (program)
 - When Fiscal Agents change (data)
- **Eligibility** - Review and edit state mapping
- **Type of service**
 - Review and edit state mapping
 - Add new types of service
- **Create “final action events”**
(e.g. stays, visits, etc.)

MAX/SMRF Data Products

The Data

■ Who has access?

- Governed by the Privacy Act/applicable HIPAA regulations
- Research protocols must be reviewed
- A Data Use Agreement (DUA) must be filed
- A CMS processing fee may apply

■ What data are available?

- Available now
 - 1999-2002 - All states and D.C.
 - SMRF 1992-1998 – 25-29 states full data
 - SMRF 1987-1991 – 5 states, data quality?
- Future availability
 - 2003 – All states and D.C. – Late 2006
 - 2004 – All states and D.C. – Early 2007





MAX/SMRF Data Products Documentation

- **Documentation on the Web**
- **Data Dictionaries**
 - General information
 - Better descriptions of data elements
 - Improved source information
 - Addition of user notes
- **Data Validation Reports**
- **Data Anomaly Reports**
 - Valid data, but unexpected results (e.g. broken time series, new covered service)
 - Data inconsistencies (can't be fix)



MAX/SMRF Data Products Documentation

- **The MAX web address is:**

http://www.cms.hhs.gov/MedicaidDataSourcesGenInfo/07_MAXGeneralInformation.asp#TopOfPage

- **The web address for detailed MAX prescription drug data is:**

http://www.cms.hhs.gov/MedicaidDataSourcesGenInfo/08_MedicaidPharmacy.asp#TopOfPage



Who uses MAX?

- **Centers for Medicare & Medicaid Services**
 - Research/evaluation
 - Actuarial analysis
 - Policy analysis
 - Epidemiology
 - Disparities in health care
 - Developing quality indicators
 - Modeling/simulation for drug policy
- **Other Federal**
 - ASPE, HRSA, AHRQ, NCI, CBO, CRS, Census and Others
- **Academics**
- **Consultants**





Medicaid Data Limitations

■ Eligibility

- Minimal information on other insurance coverage
- No beneficiary name or address
- Other data unavailable (e.g. income, other programs)
- Eligibility “Churning”

■ Services

- Only during spells of eligibility
- Only Medicaid covered services (coverage varies by state)
- Incomplete for duals (residual after Medicare payment)
- Incomplete for persons in prepaid plans



Medicaid Data Limitations

■ Payments

- Missing some payments
 - Aggregate adjustments
 - End-of-year settlements
 - Disproportionate Share Hospital (DSH)
- Incomplete for third-party payments
- Drug payment amounts are prior to rebates

■ Completeness

■ Timeliness

■ No provider characteristics